Product Catalogue

PCDS

EO 85-014

EASA STC 10083061

Complex Personnel Carrying Device System

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Revision Table

Revision	Date Revision	Date Introduced	Autor
0	25.06.2025	25.06.2025	Matthias Neuner
-	-	-	-
-	-	-	-

1 Effectivity

EC135 T1/P1 (CDS), EC135 T1/P1 (CPDS), EC135 T2/P2 (CPDS), EC135 T2+/P2+, EC135 T3/P3 (CPDS), EC135 T3H/P3H
acc. to TCDS No.: EASA.R.009
with Dual Cargo Hook (HEC approved) and
Hook P/N or Approval-No:
AS21-17, AS21-5B, AS22-52-21, 528-028-55, EASA STC 10033490, EASA STC 10040250

AS355 E, AS355 F, AS355 F1, AS355 F2, AS355 N, AS355 NP
acc. to. TCDS No.: EASA.R.146
with Dual Cargo Hook (HEC approved) and
Hook P/N or Approval-No:
EASA STC 10081304, B1310-4103, 17149-1, 528-023-XX

AS 350 B, AS 350 D, AS 350 B1, AS 350 B2, AS 350 BA, AS 350 BB, AS 350 B3 ‘
acc. to TCDS No.: EASA.R.008
with Dual Cargo Hook (HEC approved) and
Hook P/N or Approval-No:
EASA STC 10081304, B1310-4103, 17149-1, 528-023-XX

Bell 429
acc. to TCDS No.: EASA.IM.R.506
with Dual Cargo Hook (HEC approved)
P/N: 429-706-081

2 Overview

This catalog provides an overview of all approved assemblies that can be delivered with EASA Form 1. New configurations are only possible through a revision of the approval. All components are manufactured by the HeliAir production organization (EASA Part 21G).

2.1 Fixed Rope System

The fixed rope consists of a Y-rope, fixed ropes in various lengths, a load element, and a rigging plate. Additionally, it is possible to use the evacuation set with a (4-position) rigging plate.

2.2 Variable Rope

The variable rope must also be connected to the load hook via the Y-rope. The descent device and rope are permanently connected and cannot be separated. A rope bag for the variable rope is mandatory but is not manufactured by HeliAir and must be ordered through partners. The length of the variable rope can be extended by using fixed ropes.

2.3 Simple PCDS

As required by CS27 and CS29 design regulations, all components to which fewer than two persons are attached are considered 'Simple PCDS.' The List of Simple PCDS 85-014 lists all components approved for use with the two rope systems as compatible within this approval. This also applies to the listed rescue bags from Tyromont. NOTE: It is also possible to include additional Simple PCDS for operation via the Operation Manual.

2.4 Documents

The following documents are part of the approval and must be referenced accordingly during use:

- Instructions for Continued Airworthiness 85-014 R0
- System User Manual SUM 85-014 R0
- List of Simple PCDS 85-014 R0
- AFM-Supplement EC135 CDS/CPDS 85-014 R0
- AFM-Supplement EC135 HLX 85-014 R0
- AFM-Supplement AS350/355 85-014 R0
- AFM-Supplement AS350 B3 BOOST 85-014 R0
- AFM-Supplement B429 85-014 R0

2.5 Contact

Orders should preferably be placed via the HeliAir Customer Service Center.
Mail: csc@heliair.eu

For technical questions regarding the documents, compatibility, and approval, please contact HeliAir Engineering.
Mail: engineering@heliair.eu

3 STC Components

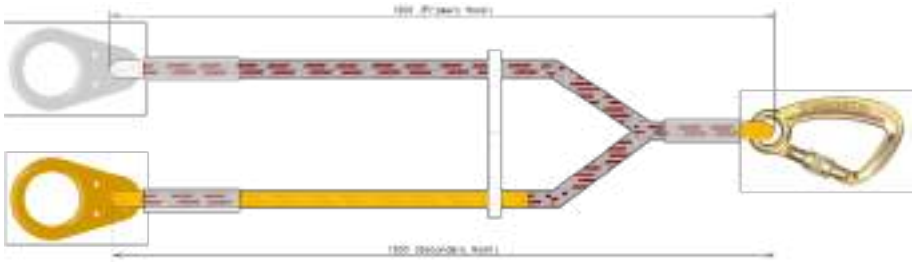
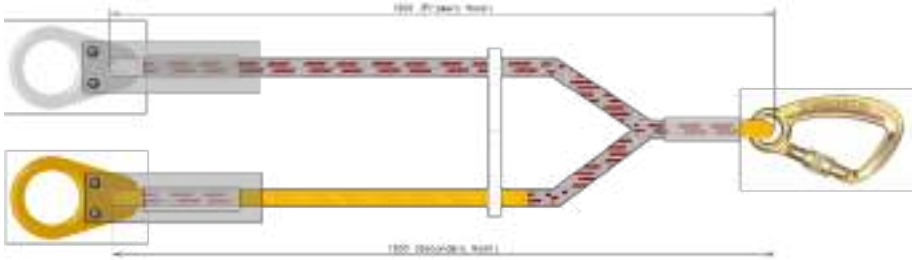
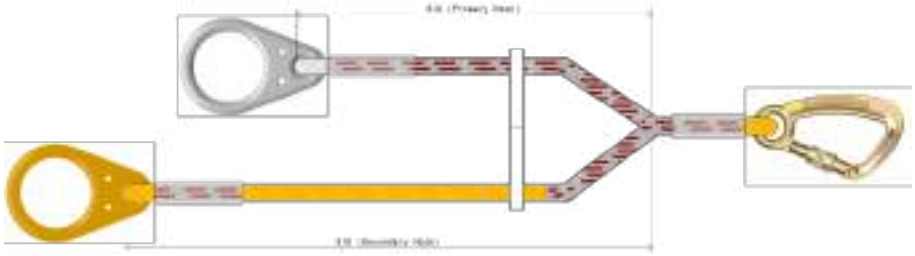
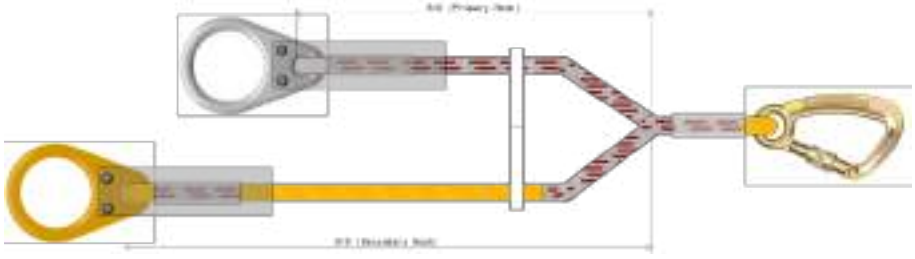
All components in this chapter are part of HeliAir Engineering Order 85-014 and are approved under EASA STC 10083061. They comply, among others, with the requirements of CS27.865. These components are delivered with an EASA Form 1 accordingly.

P/N	Description	Beschreibung
85-014-110-000	Y-Rope 135	Y-Rope 135
85-014-111-000	Y-Rope ESD 135	Y-Rope ESD 135
85-014-120-000	Y-Rope 135 OB	Y-Rope 135 OB
85-014-121-000	Y-Rope ESD 135 OB	Y-Rope ESD 135 OB
85-014-130-000	Y-Rope 350/355	Y-Rope 350/355
85-014-131-000	Y-Rope ESD 350/355	Y-Rope ESD 350/355
85-014-135-000	Y-Rope 350/355	Y-Rope 350/355
85-014-136-000	Y-Rope ESD 350/355	Y-Rope ESD 350/355
85-014-140-000	Y-Rope B3	Y-Rope B3
85-014-141-000	Y-Rope ESD B3	Y-Rope ESD B3
85-014-150-000	Y-Rope 429	Y-Rope 429
85-014-151-000	Y-Rope ESD 429	Y-Rope ESD 429
85-014-210-000	Fix Rope 10m	Fix Rope 10m
85-014-215-000	Fix Rope 15m	Fix Rope 15m
85-014-220-000	Fix Rope 20m	Fix Rope 20m
85-014-225-000	Fix Rope 25m	Fix Rope 25m
85-014-230-000	Fix Rope 30m	Fix Rope 30m
85-014-235-000	Fix Rope 35m	Fix Rope 35m
85-014-240-000	Fix Rope 40m	Fix Rope 40m
85-014-245-000	Fix Rope 45m	Fix Rope 45m
85-014-250-000	Fix Rope 50m	Fix Rope 50m
85-014-260-000	Fix Rope 60m	Fix Rope 60m
85-014-371-000	Variable Rope 70m	Variable Rope 70m
85-014-372-000	Variable Rope (2KS) 70m	Variable Rope (2 SteelCarabiner) 70m
85-014-373-000	Variable Rope (2KA) 70m	Variable Rope (2 AluminiumCarabiner) 70m
85-014-381-000	Variable Rope 80m	Variable Rope 80m
85-014-382-000	Variable Rope (2KS) 80m	Variable Rope (2 SteelCarabiner) 80m
85-014-383-000	Variable Rope (2KA) 80m	Variable Rope (2 AluminiumCarabiner) 80m
85-014-410-000	Load Element	Load Element 1m+1m
85-014-413-000	Load Element	Load Element 0,7m+1,3m
85-014-420-000	Load Element	Load Element 1m+2m
85-014-430-000	Load Element	Load Element 1m+3m
85-014-490-000	Load Element	Load Element 2m+0m
85-014-402-001	Visibility Ball for Rope	Sichtball für Rope
85-014-403-001	Visibility Ball for Load Element	Sichtball für Load Element
85-014-511-000	Rigging Plate Assy	Rigging Plate
85-014-511-000_TL	Rigging Plate Assy	Rigging Plate
85-014-512-000_TL	Rigging Plate Assy	Rigging Plate
85-014-521-000	Rigging Plate Assy	Rigging Plate
85-014-521-000_TL	Rigging Plate Assy	Rigging Plate
85-014-532-000	Rigging Plate Assy	Rigging Plate
85-014-541-000	Rigging Plate Assy	Rigging Plate
85-014-541-000_TL	Rigging Plate Assy	Rigging Plate
85-014-542-000_TL	Rigging Plate Assy	Rigging Plate
85-014-551-000	Rigging Plate Assy	Rigging Plate
85-014-561-000	Rigging Plate Assy	Rigging Plate
85-014-561-000_TL	Rigging Plate Assy	Rigging Plate
85-014-571-000	Rigging Plate Assy	Rigging Plate
85-014-581-000	Rigging Plate Assy	Rigging Plate
85-014-581-000_TL	Rigging Plate Assy	Rigging Plate
85-014-582-000	Rigging Plate Assy	Rigging Plate
85-014-583-000	Rigging Plate Assy	Rigging Plate
85-014-710-000	Evacuation Set	Evacuation Set
85-014-720-000	Evacuation Set	Evacuation Set
85-014-730-000	Evacuation Set	Evacuation Set

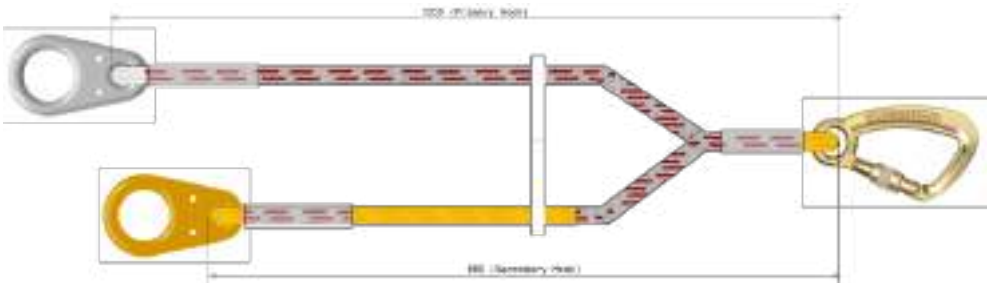
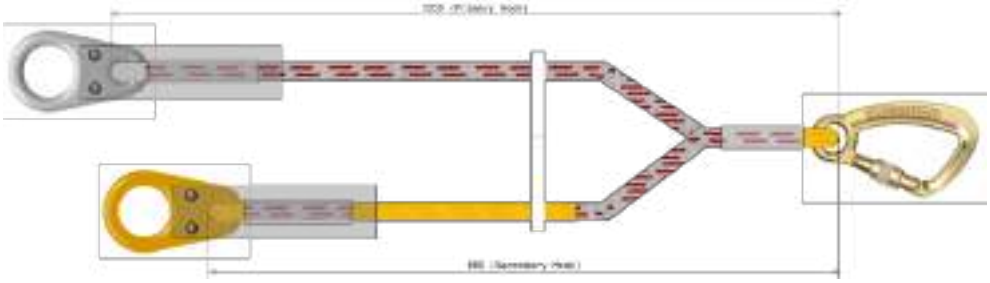
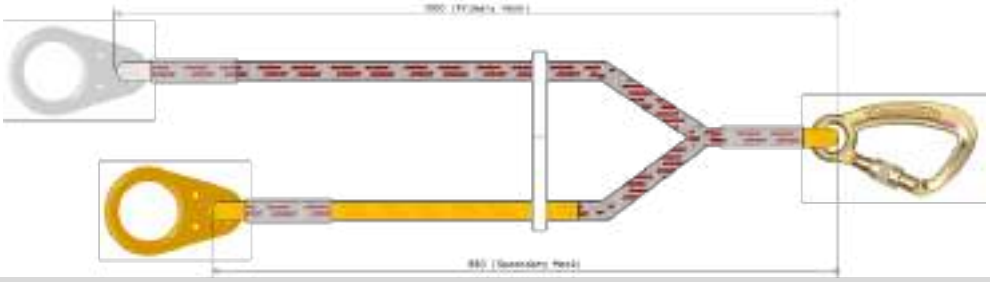
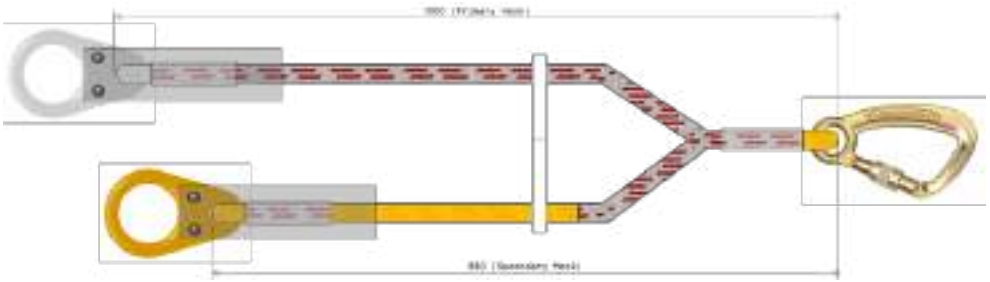
4 Y-Rope

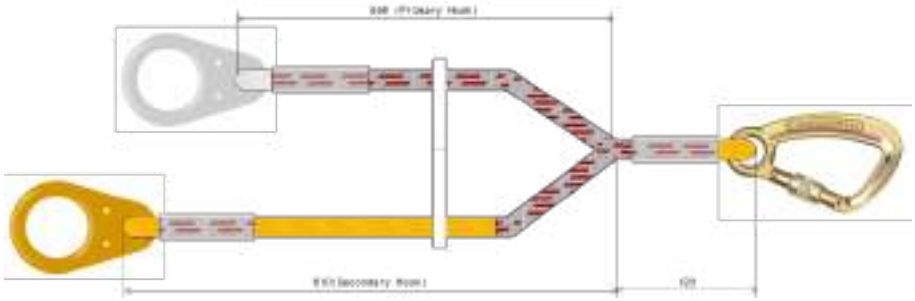
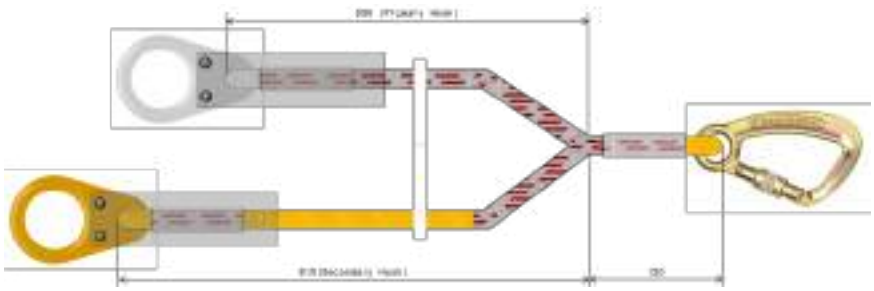
Depending on the helicopter type, cargo hook, and installed STCs, different Y-slings must be used. All Y-slings consist of two legs (rope with Dyneema core), each with a sewn-in cargo hook ring (stainless steel) of different strengths and diameters. The two rope legs and cargo hook rings are color-coded (white and yellow) to distinguish between the primary and secondary hooks. At the lower end, a 50 kN steel carabiner KH301 with screw lock is sewn in. Each Y-sling is also available with plastic protective grips that facilitate attachment and provide protection against electrical discharges.
The method for attaching the Y-slings to the cargo hook is specified in the AFM supplement of the cargo hook. The maximum load of the Y-sling is 500 kg.
For compatibility with various manufacturers' STCs, please inquire directly.

4.1 Y-Rope EC135

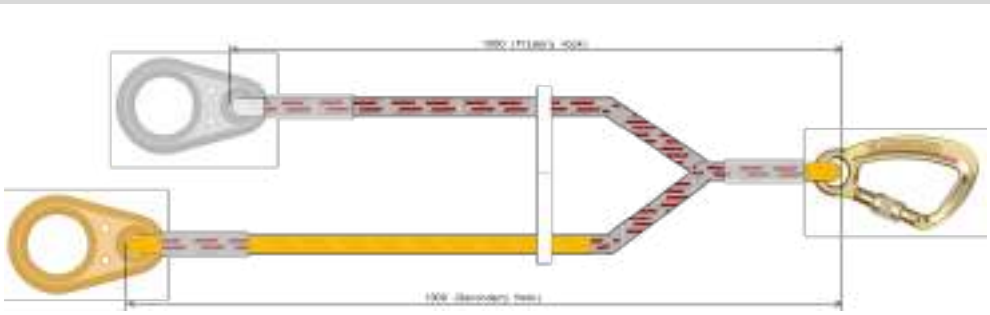
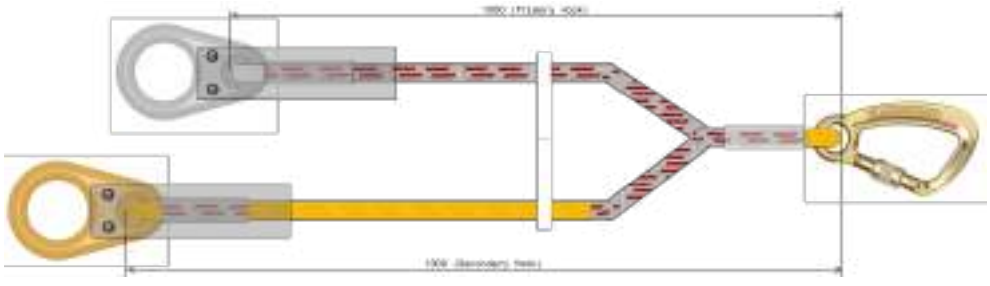
85-014-110-000 EC135 Ring 50mm L1: 1200mm L2: 1200mm	
85-014-111-000 EC135 Ring 50mm L1: 1200mm L2: 1200mm Rubber grips	
85-014-120-000 EC135 Onboard (EASA STC 10040250) Ring 64mm L1: 610 + 120mm L2: 810 + 120mm	
85-014-121-000 EC135 Onboard (EASA STC 10040250) Ring 64mm L1: 610 + 120mm L2: 810 + 120mm Rubber grips	

4.2 Y-Rope AS350 and AS355

85-014-130-000 AS350/355 Ring 40mm L1: 1000mm L2: 880mm	
85-014-131-000 AS350/355 Ring 40mm L1: 1000mm L2: 880mm Rubber grips	
85-014-135-000 AS350/355 Ring 40mm L1: 1000mm L2: 880mm	
85-014-136-000 AS350/355 Ring 40mm L1: 1000mm L2: 880mm Rubber grips	

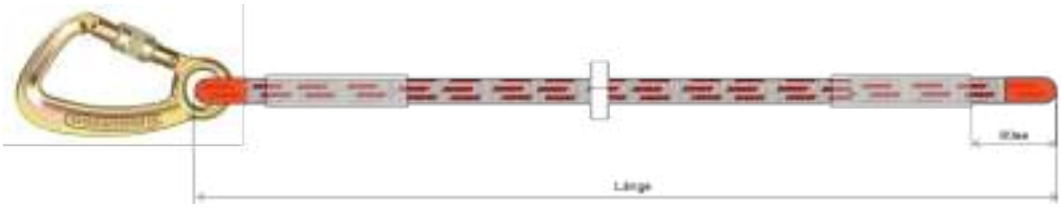
85-014-140-000 AS350B3 (EASA STC 10081304) Ring 50mm L1: 559 + 120mm L2: 610 + 120mm	
85-014-141-000 AS350B3 (EASA STC 10081304) Ring 50mm L1: 559 + 120mm L2: 610 + 120mm Rubber grips	

4.3 Y-Rope Bell 429

85-014-150-000 Bell 429 Ring 50mm (16mm) L1: 1000mm L2: 1300mm	
85-014-151-000 Bell 429 Ring 50mm (16mm) L1: 1000mm L2: 1300mm Rubber grips	

5 Fix Rope

The fixed rope is available in different lengths and also features a Dyneema core with very low elongation. A grey-red polyester sheath protects the core. The upper end is sewn into a thimble, and the lower end has a 50 kN steel carabiner KH301 with screw lock sewn in. Maximum load capacity is 500 kg. Diameter 14 mm.

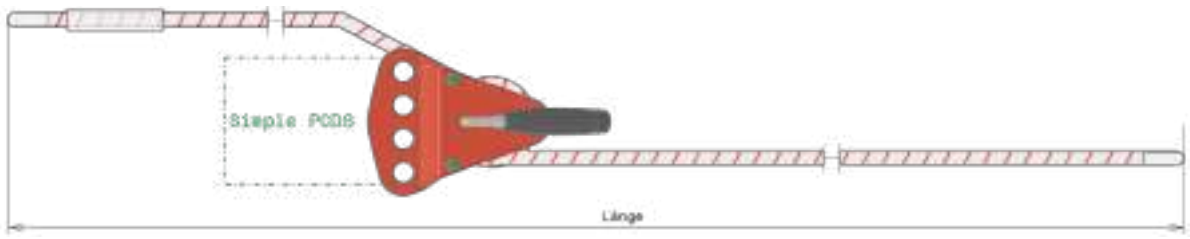


P/N	Length
85-014-210-000	10m
85-014-215-000	15m
85-014-220-000	20m
85-014-225-000	25m
85-014-230-000	30m
85-014-235-000	35m
85-014-240-000	40m
85-014-245-000	45m
85-014-250-000	50m
85-014-260-000	60m

6 Variable Rope

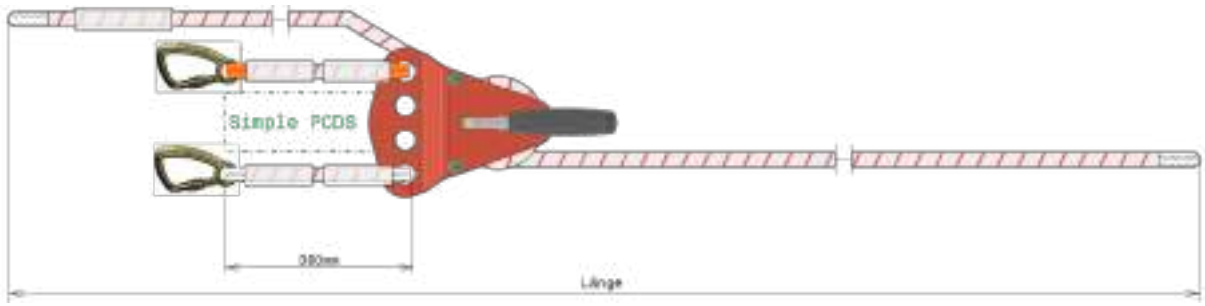
The variable rope can be used for rappelling up to 2 persons (200 kg) and for static transport of up to 3 persons (350 kg). It is technically identical to the descent device from Kendler (except for the orange anodized color) and is available in different configurations depending on the sewn-in carabiners. The carabiners are always screw-lock carabiners made of steel or aluminum. The 13 mm polyamide rope is sewn into a thimble at both ends, and the descent operation works in both directions. The rope bag is not produced by HeliAir and must be ordered from the respective partners.

6.1 Variable Rope Down Device without Carabiner



P/N	Length	Carabiner
85-014-371-000	70m	-
85-014-381-000	80m	-

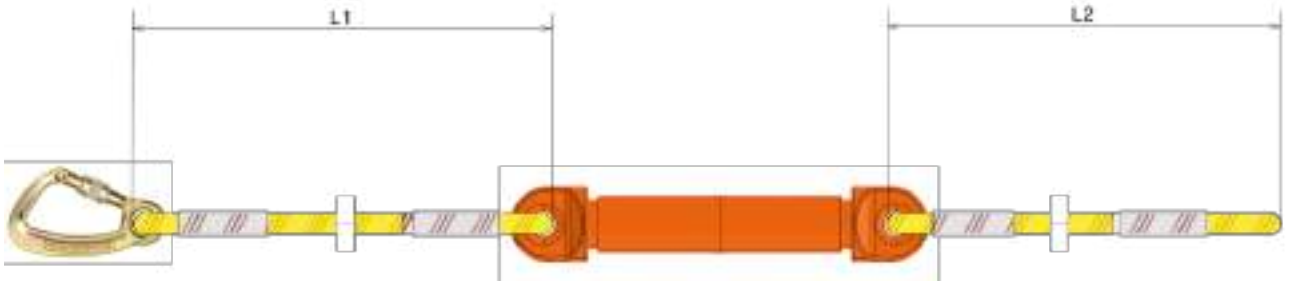
6.2 Variable Rope Down Device with Carabiner



P/N	Length	Carabiner
85-014-372-000	70m	2 x KH301 (Steel)
85-014-373-000	70m	2 x KH300 (Aluminium)
85-014-382-000	80m	2 x KH301 (Steel)
85-014-383-000	80m	2 x KH300 (Aluminium)

7 Load Element

The line load has a mass of approx. 4kg and also serves as a damping element. Due to the Dyneema Fix Rope, at least 2m of polyamide rope (diameter 14mm) must be used for damping, Length is also possible. The rope is fitted with a yellow protective sleeve. A 50kN steel carabiner KH301 with screw lock is sewn into the lower end. The line load weight is made of stainless steel and is powder-coated in orange. Maximum load 500kg.



P/N	Length	L1	L2
85-014-410-000	2,3m	1m	1m
85-014-413-000	2,3m	0,7m	1,3m
85-014-420-000	3,3m	1m	2m
85-014-430-000	4,3m	1m	3m

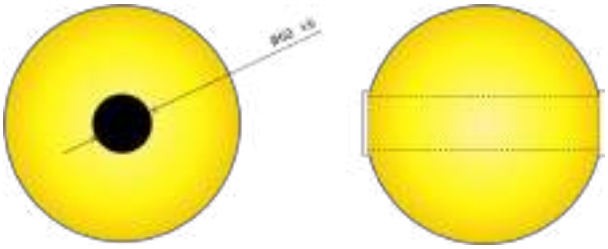


P/N	Length	Note
85-014-490-000	2,3m	Upper hole adapted to Carabiner KH301.

Sight elements can be attached using the ‘System User Manual 85-014’. If required, please send your enquiry directly to HeliAir. Sight balls (Mr Antibouce) can be used directly on both the line load and the Fix Rope. These can be modified by yourself.

8 Visibility Ball

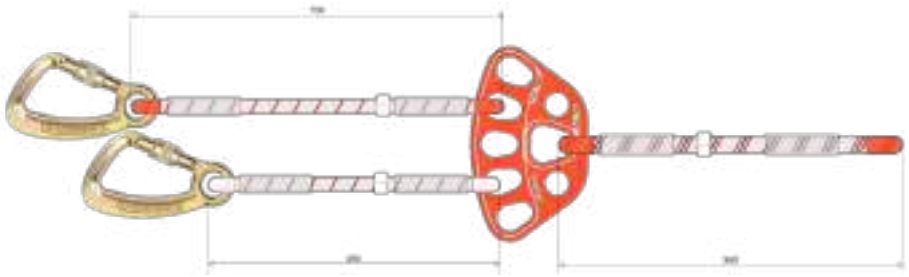
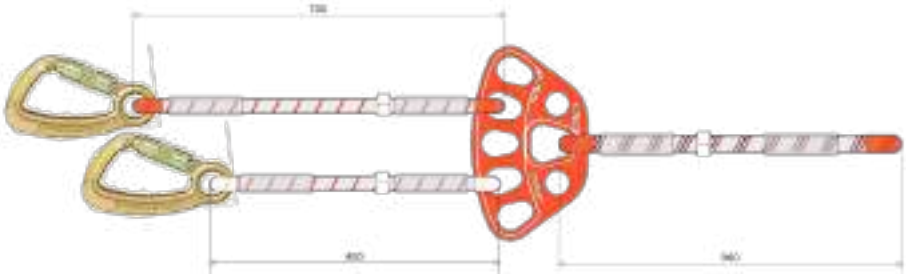
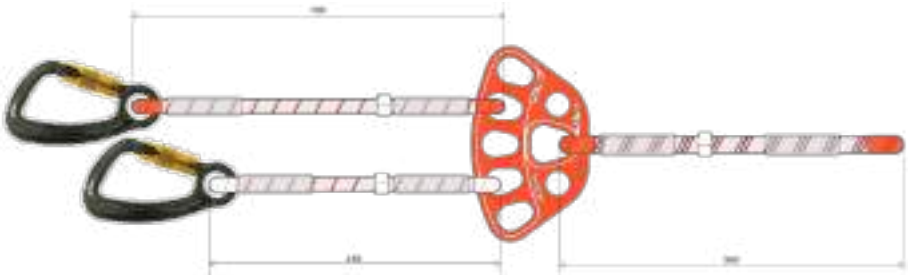
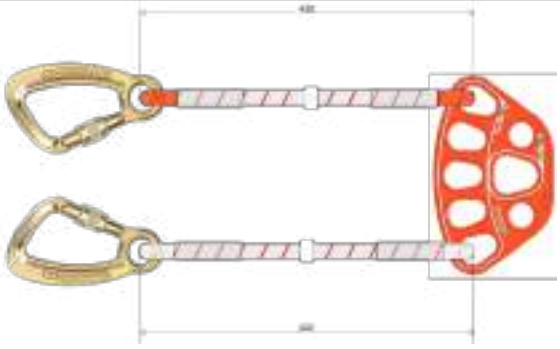
For use both on the Load Element and directly on the Fix Rope. Total diameter approx. 21cm. The basis is a Sportastic Mr. Antibounce in the colour yellow. Please enquire about other colours.

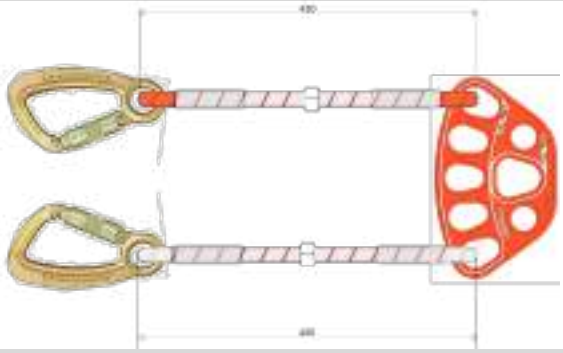
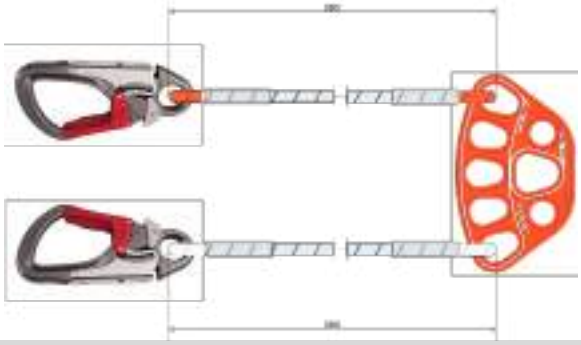
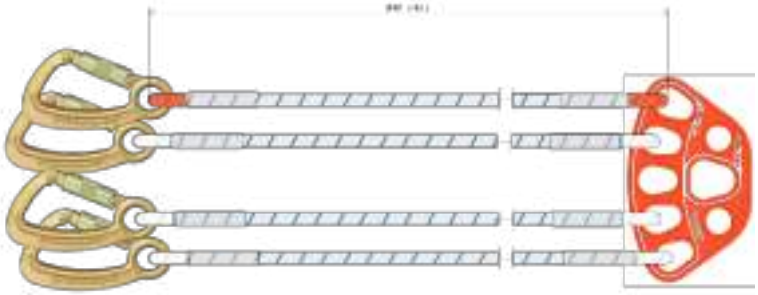


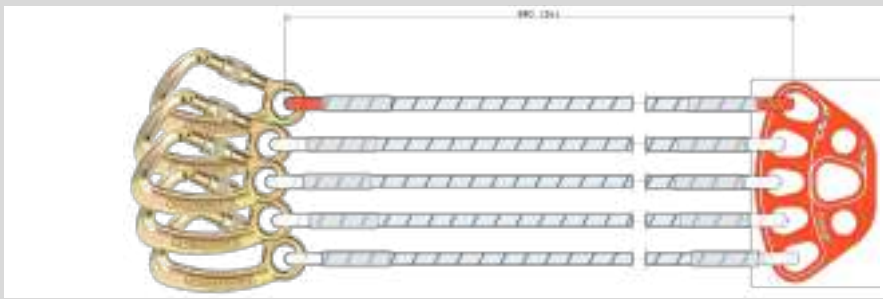
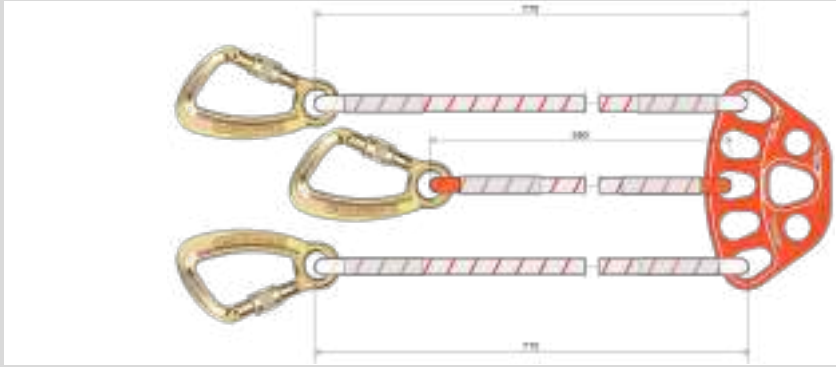
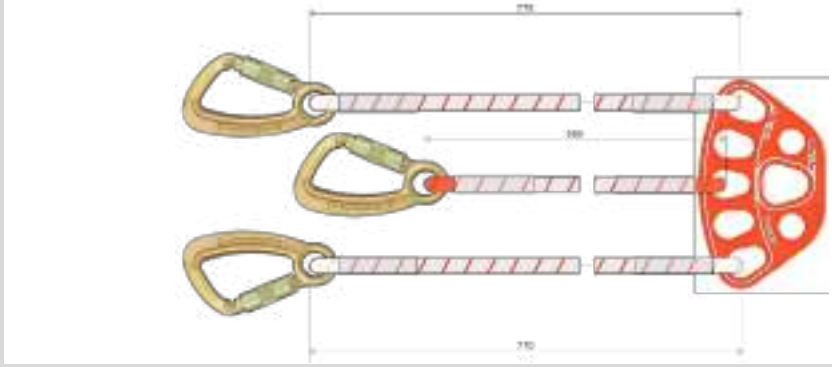
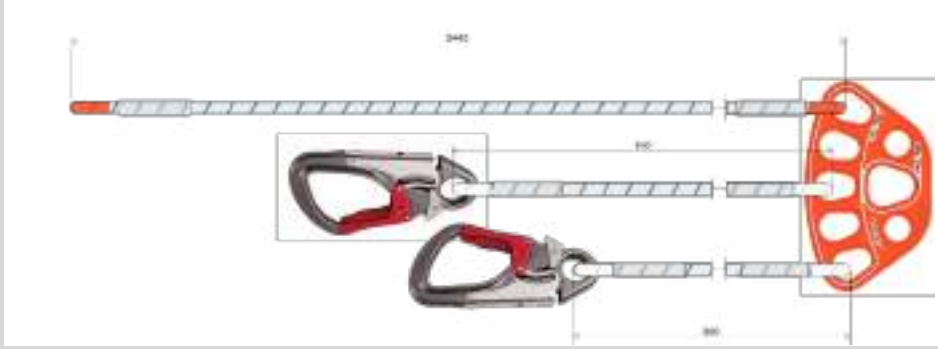
P/N	Appliaction
85-014-402-001	Fix Rope, Hole Ø25mm
85-014-403-001	Load Element, Hole Ø50mm

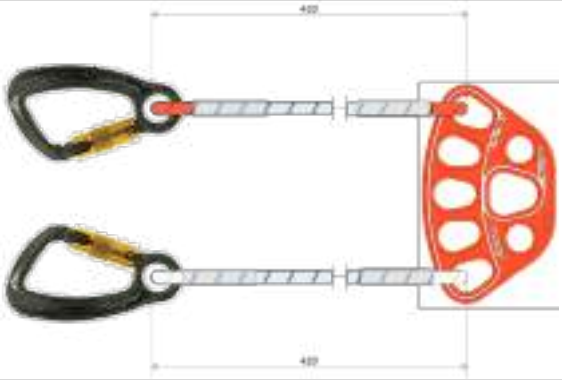
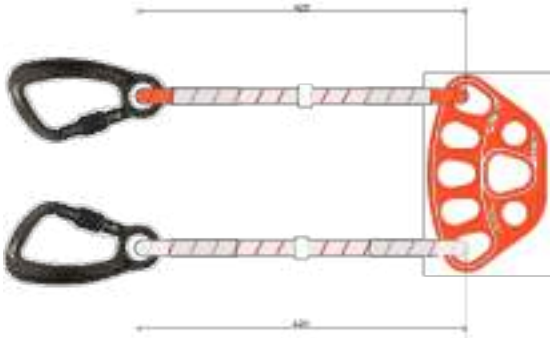
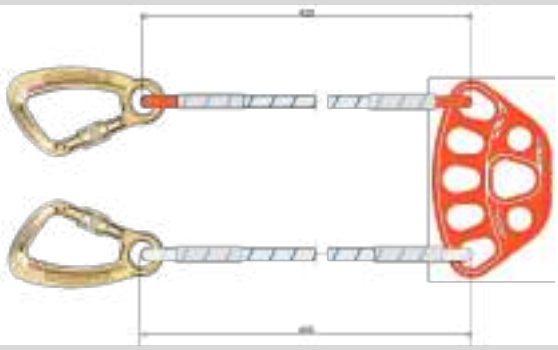
9 Rigging Plate

The Rigging Plate Assy (rescue trapeze) is available in a wide variety of versions, but always have the same plate as a base. This is made of stainless steel and powder-coated in orange. Each rigging plate is individually ultrasonically tested to guarantee freedom from cracks and defects. All sewn-in ropes are polyamide ropes in diameters of 10.5 mm, 13 mm or 14 mm. One of them is labelled with orange marks. Maximum load 500kg.

85-014-511-000 2x 13mm Rope with KH301 Screwgate Carabiner (Steel) Top 14mm Polyamide rope Lengthn: 700mm & 450mm Length Top: 360mm	
85-014-511-000_TL 2x 13mm Rope with KH301 Twist-Lock-Carabiner (Steel) Top 14mm Polyamide rope Lengthn: 700mm & 450mm Length Top: 360mm	
85-014-512-000 2x 13mm Rope with KH300 Twist-Lock-Carabiner (Aluminium) Top 14mm Rope Lengthn: 700mm & 450mm Length Top: 360mm	
85-014-521-000 2x 13mm Rope with KH301 Screwgate Carabiner (Steel) Length: 420mm	

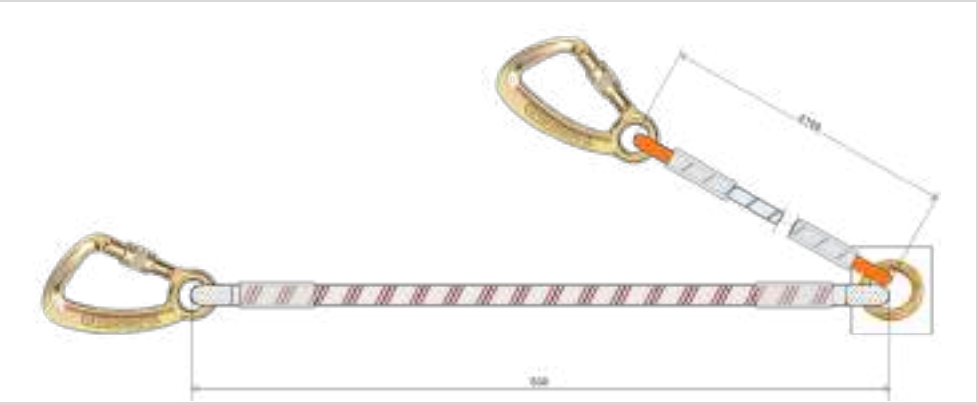
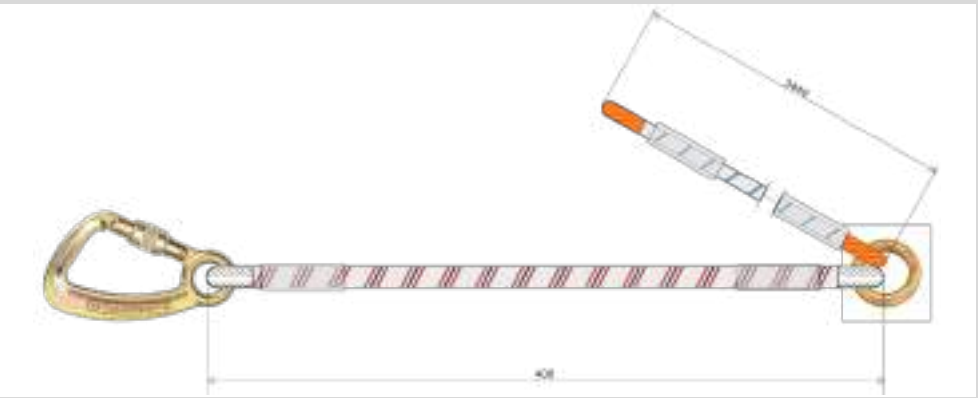
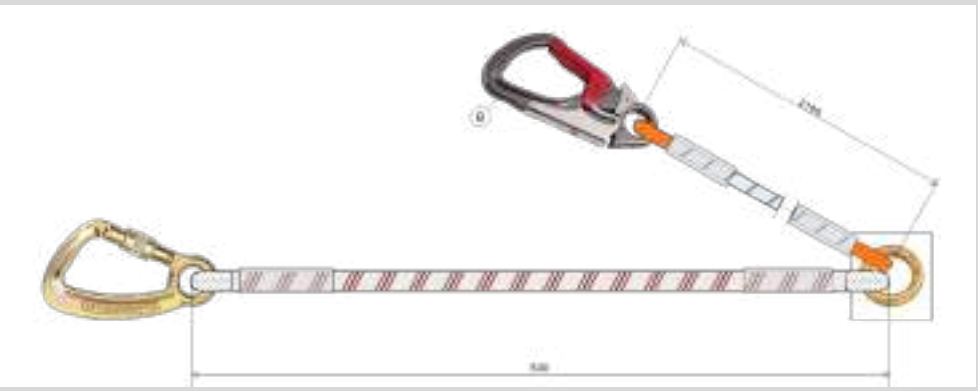
85-014-521-000_TL 2x 13mm Rope with KH301 Twist-Lock-Carabiner (Steel) Length: 420mm	
85-014-532-000 2x 10,5mm Rope with SH907 Carabiner (Aluminium) Length: 380mm	
85-014-541-000 4x 10,5mm Rope with KH301 Screwgate Carabiner (Steel) Length: 940mm	
85-014-541-000_TL 4x 10,5mm Rope with KH301 Twist-Lock-Carabiner (Steel) Length: 940mm	
85-014-542-000_TL 4x 10,5mm Rope with KH300 Twist-Lock-Carabiner (Aluminium) Length: 940mm	

85-014-542-000 5x 10,5mm Rope with KH301 Screwgate Carabiner (Steel) Length 940mm	
85-014-561-000 3x 13mm Rope with KH301 Screwgate Carabiner (Steel) Lengthn: 770mm&580mm	
85-014-561-000_TL 3x 13mm Rope with KH301 Twist-Lock-Carabiner (Steel) Lengthn: 770mm&580mm	
85-014-571-000 3x 10,5mm Rope with 2 SH907 Carabiner (Aluminium). Eine Strap with thimble. Lengthn: 380mm&640mm Length Positionierer: 3440mm	
85-014-581-000 2x 10,5mm Rope with KH300 Screwgate Carabiner (Aluminium) Length: 420mm	

85-014-581-000_TL 2x 10,5mm Rope with KH300 Twist-Lock-Carabiner (Aluminium) Length: 420mm	
85-014-582-000 2x 13mm Rope with KH300 Screwgate Carabiner (Aluminium) Length: 420mm	
85-014-583-000 2x 10,5mm Rope with KH301 Screwgate Carabiner (Steel) Length: 420mm	

10 Evacuation set

The central element of this ‘variable hanger’ is a 70kN steel ring into which 2 ropes are sewn. A rigging plate with up to 4 people can be attached via the screwgate carabiner of the 14mm rope. A positioning element such as a Petzl Grillon or Skylotec Lory can be attached to the long 10.5mm rope (flight rescue team, marked orange). Maximum load in total 500kg.

85-014-710-000 1x 10,5mm Rope 1x 14mm Rope 2 KH301 Screwgate Carabiner Length 14mm: 500mm Length 10.5mm: 2100mm	
85-014-720-000 1x 10,5mm Rope with Kausche 1x 14mm Rope with KH301 Screwgate Carabiner Length 14mm: 500mm Length 10.5mm: 3440mm	
85-014-730-000 1x 10,5mm Rope with SH907 Carabiner (Aluminium) 1x 14mm Rope with KH301 Screwgate Carabiner Length 14mm: 500mm Length 10.5mm: 2100mm	

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Design: AP-112
Production: AT.21G.0014

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